

## **LISTING OF THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. **(Previously Presented)** A lighting apparatus using microwave energy, comprising:
  - a casing;
  - a reflector fixed to an outer surface of the casing;
  - a magnetron disposed inside the casing, for generating microwave energy;
  - a waveguide for guiding microwave energy;
  - a resonator disposed inside the reflector and providing a resonant region in which the microwave energy is resonated;
  - a bulb having a stem disposed inside the resonator, and filled with a material which emits light, when excited by the microwave energy; and
  - a rear mirror integrally fixed to the bulb stem and integrally rotatable together with the bulb when the bulb is rotated, for forwardly reflecting light rearwardly emitted from the bulb.
2. **(Currently Amended)** The apparatus of claim 1, wherein the rear mirror is formed in a hemispherical shape having a curved shape surface.
3. **(Original)** The apparatus of claim 2, wherein the bulb is positioned at a focal point of the curved surface of the rear mirror.
4. **(Original)** The apparatus of claim 1, wherein the rear mirror is made of a quartz material.

### **5-6. (Cancelled)**

7. **(Currently Amended)** The apparatus of claim 51, wherein the fixed mirror is formed in a hemispherical shape having a curved shape surface.

8. **(Original)** The apparatus of claim 7, wherein the bulb is positioned at a focal point of the curved surface of the fixed mirror.

9. **(Currently Amended)** The apparatus of claim 51, wherein the rear mirror is formed in a hemispherical shape having a curved **shape surface**.

10. **(Original)** The apparatus of claim 9, wherein the bulb is positioned at a focal point of the curved surface of the rear mirror.

11. **(Currently Amended)** The apparatus of claim 51, wherein the rear mirror is made of a quartz material.

12. **(Currently Amended)** The apparatus of claim 51, wherein the fixed mirror is made of a ceramic material.

13. **(Original)** The apparatus of claim 12, wherein the fixed mirror is made of an  $\text{Al}_2\text{O}_3$ ,  $\text{Si}_3\text{N}_4$  or  $\text{AlN}$  material.

14. **(New)** A lighting apparatus using microwave energy, comprising:  
a casing;  
a reflector fixed to an outer surface of the casing;  
a magnetron disposed inside the casing, for generating microwave energy;  
a waveguide for guiding microwave energy;  
a resonator disposed inside the reflector and providing a resonant region in which the microwave energy is resonated;  
a bulb having a stem disposed inside the resonator, and filled with a material which emits light, when excited by the microwave energy;

a rear mirror integrally fixed to the bulb stem and integrally rotatable together with the bulb when the bulb is rotated, for forwardly reflecting light rearwardly emitted from the bulb; and

a fixed mirror fixed to the casing at a rear side of the bulb and having a hole in which a bulb stem rearwardly extended from the bulb is rotatably insertable for forwardly reflecting light emitted to the rear of the bulb,

wherein a diameter of the hole of the fixed mirror is formed to be smaller than a width of the rear mirror.

15. (New) The apparatus of claim 14, wherein the fixed mirror is formed in a hemispherical shape having a curved surface.

16. (New) The apparatus of claim 14, wherein the rear mirror is formed in a hemispherical shape having a curved surface.

17. (New) The apparatus of claim 14, wherein the rear mirror is made of a quartz material.

18. (New) The apparatus of claim 14, wherein the fixed mirror is made of a ceramic material.

19. (New) The apparatus of claim 14, wherein the bulb is positioned at a focal point of the curved surface of the rear mirror.

20. (New) The apparatus of claim 14, wherein the fixed mirror is made of an  $\text{Al}_2\text{O}_3$ ,  $\text{Si}_3\text{N}_4$  or  $\text{AlN}$  material.